No.



200300124

THE DATKHED STRAILES O FAMIERIOA

TO ALL TO WHOM THESE; PRESENTS; SHALL, COME;

Monsanto Jechnology XXG

HIGTERS, THERE HAS BEEN PRESENTED TO THE

Secretary of Agriculture

AN APPLICATION REQUESTING A CERTIFICATE OF PROTECTION FOR AN ALLEGED DISTINCT VARIETY OF SEXUALLY REPRODUCED, OR TUBER PROPAGATED PLANT, THE NAME AND DESCRIPTION OF WHICH ARE CONTAINED IN THE APPLICATION AND EXHIBITS, A COPY OF WHICH IS HEREUNTO ANNEXED AND MADE A PART HEREOF, AND THE VARIOUS REQUIREMENTS OF LAW IN SUCH CASES MADE AND PROVIDED HAVE BEEN COMPLIED WITH, AND THE TITLE THERETO IS, FROM THE RECORDS OF THE PLANT VARIETY PROTECTION OFFICE, IN THE APPLICANT(S) INDICATED IN THE SAID COPY, AND WHEREAS, UPON DUE EXAMINATION MADE, THE SAID APPLICANT(S) IS (ARE) ADJUDGED TO BE ENTITLED TO A CERTIFICATE OF PLANT VARIETY PROTECTION UNDER THE LAW.

NOW, THEREFORE, THIS CERTIFICATE OF PLANT VARIETY PROTECTION IS TO GRANT UNTO THE SAID APPLICANT(S) AND THE SUCCESSORS, HEIRS OR ASSIGNS OF THE SAID APPLICANT(S) FOR THE TERM OF TWENTY TEARS FROM THE DATE OF THIS GRANT, SUBJECT TO THE PAYMENT OF THE REQUIRED FEES AND PERIODIC PLENISHMENT OF VIABLE BASIC SEED OF THE VARIETY IN A PUBLIC REPOSITORY AS PROVIDED BY LAW, THE HIT TO EXCLUDE OTHERS FROM SELLING THE VARIETY, OR OFFERING IT FOR SALE, OR REPRODUCING IT, OR TING IT, OR EXPORTING IT, OR CONDITIONING IT FOR PROPAGATION, OR STOCKING IT FOR ANY OF THE PURPOSE, OR CONDITIONING IT FOR PROPAGATION, OR STOCKING IT FOR ANY OF THE ABOVE OR USING IT IN PRODUCING A HYBRID OR DIFFERENT VARIETY THEREFROM, TO THE EXTENT PROPAGATION OF THE PLANT VARIETY PROTECTION ACT. (84 STAT. 1542, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

SOYBEAN

'0040887'

In Testimonn Musters, I have hereunto set my hand and caused the seal of the Mant Interior Protection Office to be affixed at the City of Washington, D.C. this fourth day of Tebruary, in the year two thousand and five.

Attest:

Commissioner
Plant Variety Protection Office

 Λ , Λ

ctary of Agriculture

U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
SCIENCE AND TECHNOLOGY - PLANT VARIETY PROTECTION OFFICE

APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE

The following statements are made in accordance with the Privacy Act of 1974 (5 U.S.C. 552a) and the Paperwork Reduction Act (PRA) of 1995.

Application is required in order to determine if a plant variety protection certificate is to be issued (7 U.S.C. 2421). Information is held confidential until certificate is issued (7 U.S.C. 2426).

| (instructions and information | collection burden statemen | t on reverse) | | | | and the second of the second | |
|--|--|--|---|---|-----------------------|---|--|
| NAME OF OWNER Monsanto | Technology LLC | | | 2 TEMPORARY DESIGNA EXPERIMENTAL NAME DFN3002C0R | FION OR | 3. VARIETY NAME 0040887 | |
| 4. ADDRESS (Street and No., or R.F.D. No. | o., City, State, and ZIP Code, and Co. | untry) | e de la companya de | 5. TELEPHONE (include are | ea code) | FOR OFFICIAL USE ONLY | |
| 634 E. Liı | ncoln Way | | , | (515) 232-717 | 0 | PVPQNUMBER A A A A | |
| Ames, IA | | | eli jiha sa di sa sa Karaba | 6. FAX (include area code) | | 20030016 | |
| | | No. of the | | (515) 232-690 | ns | | |
| | | | | (313) 232-090 | | FILING DATE | |
| 7. IF THE OWNER NAMED IS NOT A "PER ORGANIZATION (corporation, partnershi | RSON", GIVE FORM OF ip, association, etc.) | 8. IF INCORPOR | ATED, GIVE CORPORATION | 9. DATE OF INCORPORAT | ION | 2/4/2003 | |
| Limited Liability | Company | | | | - | | |
| 10. NAME AND ADDRESS OF OWNER RE | PRESENTATIVE(S) TO SERVE IN T | THIS APPLICATION. (F | First person listed will i | receive all papers) | | FILING AND EXAMINATION FEES: | |
| Donald Steffen 634 E. Lincoln W Ames, IA 50010 | | | | | | E \$ 2,705.00 E DATE 2/4/2003 | |
| and the second second | | | | | | CERTIFICATION FEE: | |
| | | 1 | 4 | | | \$ 432.00 | |
| |) | | ~ | | | DATE /0/12/04 | |
| 11. TELEPHONE (Include area code) | 12. FAX (Include area code) | 13. E- | MAIL | | 14. CROF | KIND (Common Name) | |
| (515) 956-3002 | (515) 232-6905 | doı | nald.e.steffen | @monsanto.com | @monsanto.com Soybean | | |
| 15. GENUS AND SPECIES NAME OF CRO | P . | 16. FA | MILY NAME (Botanio | cal) | | E VARIETY A FIRST GENERATION | |
| Glycine max (L.) M | ferr. | | Fabaceae (Le | guminosae) | HYBRID? | ∏YES ∏ NO | |
| | | | | | OF THE VAL | DIETZ DE COLD AC A CLASS OF | |
| CHECK APPROPRIATE BOX FOR EAC reverse) | HATTACHMENT SUBMITTED (Foll | ow instructions on | 19. DOES THE CERTIFIED | | | RIETY BE SOLD AS A CLASS OF ariety Protection Act) | |
| a. Z Exhibit A. Origin and Breedin | g History of the Variety | er i versioner bestellt. Her i versioner bestellt best | ☐ YE | ES (If "yes", answer items 20 and 21 below) | <u> </u> | NO (If "no," go to item 22) | |
| b, 🗹 Exhibit B. Statement of Distin | | | | OWNER SPECIFY THAT SEED | | YES NO | |
| c. Exhibit C. Objective Descripti | | | | VARIETY BE LIMITED AS TO NUMBER OF CLASSES? IF YES, WHICH CLASSES? FOUNDATION REGISTERED CERTIFIED | | | |
| d. | asis of the Owner's Ownership | | | | | | |
| f. Voucher Sample (2,500 viable verification that tissue culture | e untreated seeds or, for tuber propa will be deposited and maintained in a | | | OWNER SPECIFY THAT THE (TO NUMBER OF GENERATIO | | YES NO | |
| repository) | \$2.705), made nevelle to "Tressurer | of the United | IF YES, SPE NUMBER 1, | | TION. | REGISTERED CERTIFIED | |
| g. Filing and Examination Fee (States" (Mail to the Plant Varie | \$2,705), made payable to "Treasurer ety Protection Office) | or the officed | (If additional | explanation is necessary, pleas | e use the spa | ce indicated on the reverse.) | |
| 22. HAS THE VARIETY (INCLUDING ANY F FROM THIS VARIETY BEEN SOLD, DIS OTHER COUNTRIES? | HARVESTED MATERIAL) OR A HYB SPOSED OF, TRANSFERRED, OR U | RID PRODUCED JSED IN THE U. S. OR | | IETY OR ANY COMPONENT O RIGHT (PLANT BREEDER'S R | | TY PROTECTED BY INTELLECTUAL TENT)? | |
| YES | ₩ NO | | ✓ YE | ES . | | NO | |
| IF YES, YOU MUST PROVIDE THE DA FOR EACH COUNTRY AND THE CIRC | TE OF FIRST SALE, DISPOSITION, UMSTANCES. (Please use space in | TRANSFER, OR USE | IF YES, GIVE REFERENCE | COUNTRY, DATE OF FILING NUMBER. (Please use space | OR ISSUANO | CE AND ASSIGNED reverse.) | |
| 24. The owners declare that a viable sample for a tuber propagated variety a tissue or | | | | shed upon request in accordance | with such re | gulations as may be applicable, or | |
| The undersigned owner(s) is(are) the ow and is entitled to protection under the protection owner(s) is(are) informed that false repr | oner of this sexually reproduced or to ovisions of Section 42 of the Plant Va | ber propagated plant v ariety Protection Act. | ariety, and believe(s) | | | | |
| SIGNATURE OF OWNER | | | SIGNATURE OF | OWNER | | en e | |
| L to State | • · · · · · · · · · · · · · · · · · · · | | | · · · · · · · · · · · · · · · · · · · | | · · · · · · · · · · · · · · · · · · · | |
| NAME (Please print or type) | | - | NAME (Please p | rint or type) | | | |
| Donald Steffen | | | | र्यः | 18674 | en e | |
| CAPACITY OR TITLE | DATE | | CAPACITY OR 1 | ritle , | | DATE | |
| Oilseeds IP/Reg. Affairs Manager 31 Jan 2003 | | | | V = V | | , | |

19

GENERAL: To be effectively filed with the Plant Variety Protection Office (PVPO), ALL of the following items must be received in the PVPO: (1) Completed application form signed by the owner; (2) completed exhibits A, B, C, E; (3) for a seed reproduced variety at least 2,500 viable untreated seeds, for a hybrid variety at least 2,500 untreated seeds of each line necessary to reproduce the variety, or for tuber reproduced varieties verification that a viable (in the sense that it will reproduce an entire plant) tissue culture will be deposited and maintained in an approved public repository; (4) check drawn on a U.S. bank for \$2,705 (\$320 filing fee and \$2,385 examination fee), payable to "Treasurer of the United States" (See Section 97.6 of the Regulations and Rules of Practice.) Partial applications will be held in the PVPO for not more than 90 days, then returned to the applicant as unfiled. Mail application and other requirements to Plant Variety Protection Office, AMS, USDA, Room 500, NAL Building, 10301 Baltimore Avenue, Beltsville, MD 20705-2351. Retain one copy for your files. All items on the face of the application are self explanatory unless noted below. Corrections on the application form and exhibits must be initialed and dated. DO NOT use masking materials to make corrections. If a certificate is allowed, you will be requested to send a check payable to "Treasurer of the United States" in the amount of \$320 for issuance of the certificate. Certificates will be issued to owner, not licensee or agent.

> Plant Variety Protection Office Telephone: (301) 504-5518 FAX: (301) 504-5291

Homepage: http://www.ams.usda.gov/science/pvp.htm

ITEM

18a. Give:

- (1) the genealogy, including public and commercial varieties, lines, or clones used, and the breeding method;
- (2) the details of subsequent stages of selection and multiplication;
- (3) evidence of uniformity and stability; and
- (4) the type and frequency of variants during reproduction and multiplication and state how these variants may be identified
- 18b. Give a summary of the variety's distinctness. Clearly state how this application variety may be distinguished from all other varieties in the same crop. If the new variety is most similar to one variety or a group of related varieties:

 - (1) identify these varieties and state all differences objectively;
 (2) attach statistical data for characters expressed numerically and demonstrate that these are clear differences; and
 - (3) submit, if helpful, seed and plant specimens or photographs (prints) of seed and plant comparisons which clearly indicate distinctness.
- 18c. Exhibit C forms are available from the PVPO Office for most crops; specify crop kind. Fill in Exhibit C (Objective Description of Variety) form as completely as possible to describe your variety.
- 18d. Optional additional characteristics and/or photographs. Describe any additional characteristics that cannot be accurately conveyed in Exhibit C. Use comparative varieties as is necessary to reveal more accurately the characteristics that are difficult to describe, such as plant habit, plant color, disease resistance, etc.
- 18e. Section 52(5) of the Act requires applicants to furnish a statement of the basis of the applicant's ownership. An Exhibit E form is available from the PVPO.
- 19. If "Yes" is specified (seed of this variety be sold by variety name only, as a class of certified seed), the applicant MAY NOT reverse this affirmative decision after the variety has been sold and so labeled, the decision published, or the certificate issued. However, if "No" has been specified, the applicant may change the choice. (See Regulations and Rules of Practice, Section 97.103).
- 21. See Section 83 of the Act for the Contents and Term of Plant Variety Protection.
- 22. See Sections 41, 42, and 43 of the Act and Section 97.5 of the regulations for eligibility requirements.
- See Section 5.5 of the Act for instructions on claiming the benefit of an earlier filing date.
- 21. CONTINUED FROM FRONT (Please provide a statement as to the limitation and sequence of generations that may be certified.)
- 22. CONTINUED FROM FRONT (Please provide the date of first sale, disposition, transfer, or use for each country and the circumstances, if the variety (including any harvested material) or a hybrid produced from this variety has been sold, disposed of, transferred, or used in the U.S. or other countries.)
- 23. CONTINUED FROM FRONT (Please give the country, date of filing or issuance, and assigned reference number, if the variety or any component of the variety is protected by intellectual property right (Plant Breeder's Right or Patent).)
- U.S. Patent No. 5,776,760. Issue Date: July 7, 1998. Assignee: Monsanto Company. Patent Application No. 484,274.

NOTES: It is the responsibility of the applicant/owner to keep the PVP morner of any changes of address or change of ownership or assignment or owner's representative during the life of the application/certificate. There is no charge for filling a change of address. The fee for filling a change of ownership or assignment or any modification of owner's name is specified in Section 97.175 of the regulations. (See Section 101 of the Act, and Sections 97.130, 97.131, 97.175(h) of the Regulations and Rules of Practice.) 09V9-2MA-AOSU

To avoid conflict with other variety names in use, the applicant must check the variety names proposed by contacting: Seed Branch, AMS, USDA, Room 213, Building 306, Beltsville Agricultural Research Center-East, Beltsville, MD 20705. Telephone: (301) 504-8089. http://www.ams.usda.gov/lsg/seed/ls-sd,htm

According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this collection of information is (0581-0055). The time required to complete this information collection is estimated to average 1.4 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information:

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, gender, religion, age, disability, political beliefs, sexual orientation, or marital or family status. (Not all prohibited bases apply to all programs.) Persons with disabilities who require alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact the USDA's TARGET Center at 202-720-2600 (voice and TDD). To file a complaint of discrimination, write USDA, Director, Office of Civil Rights, Room 326-W, Whitten Building, 14th and Independence Avenue, SW, Washington, DC 20250-9410 or call (202) 720-5964 (voice and TDD). USDA is an equal opportunity provider and employer

S&T-470 (04-01) designed by the Plant Variety Protection Office with WordPerfect 6.0a. Replaces STD-470 (02-99) which is obsolete.



MONSANTO TECHNOLGY LLC PVP APPLICATION - 0040887

EXHIBIT A

ORIGIN AND BREEDING HISTORY

1998 - Final cross was made in 1998 at Isabela, Puerto Rico.

Parentage: ST2788/AG3302

Source of glyphosate tolerance is 40-3-2.

1998 - F1 generation was grown at Isabela, Puerto Rico and advanced using modified single seed descent.

1998 - F2 generation was grown at Isabela, Puerto Rico and advanced using modified single seed descent.

1999 – F3 bulk populations were grown at Findlay, Ohio and single plants pulled.

2000 - F3 derived F4 plants were grown at Findlay, Ohio in progeny rows and variety 0040887 was selected.

Note: Selections made upon bases of disease resistance (PRR, SCN, BRSR) and resistance to glyphosate resistance. 2000 - F3:5 breeder seed was grown at Kihei, Hawaii for progeny row. (Per applicants authorization given on 7/16/2003 bt.)

Variety 0040887 was observed to be uniform and stable for the characteristics described within this application based on our observations since 2000 and, henceforth, to present. No variants were observed during this time.

Variety 0040887 has continued to be grown in yield tests at 8 locations in 2001 and 31 locations in 2002 for comparison against other varieties to determine how it would be used in our marketing program.

200300124

MONSANTO TECHNOLGY LLC PVP APPLICATION - 0040887

EXHIBIT B

NOVELTY STATEMENT

To our knowledge, the soybean varieties that closely resemble 0040887 are AG3003, and 93244449:

| 1. Pod Wall color | 0040887 | - Brown |
|--------------------------------------|----------|---------------|
| • | AG3003 | - Tan |
| | 93244449 | - Tan |
| 2. SCN Resistance | 0040887 | - Susceptible |
| | AG3003 | - Susceptible |
| | 93244449 | - Susceptible |
| 3. PRR Gene | 0040887 | - Rpslc |
| (Tolerance to Phytophthora Root Rot) | AG3003 | - Rps1k |
| | 93244449 | - Rps1k |

4

According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this collection of information is (0581-0055). The time required to complete this information collection is estimated to average 30 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, gender, religion, age, disability, political beliefs, sexual orientation, and marital or family status. (Not all prohibited bases apply to all programs.) Persons with disabilities who require alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact the USDA's TARGET Center at 202-720-2600 (voice and TDD).

To file a complaint of discrimination, write USDA, Director, Office of Civil Rights, Room 326-W, Whitten Building, 14th and Independence Avenue, SW, Washington, DC 20250-9410 or call (202) 720-5964 (voice and TDD). USDA is an equal opportunity provider and employer.

U.S. DEPARTMENT OF AGRICULTURE AGRICULTURAL MARKETING SERVICE SCIENCE AND TECHNOLOGY PLANT VARIETY PROTECTION OFFICE BELTSVILLE, MD 20705 EXHIBIT C (Soybean)

OBJECTIVE DESCRIPTION OF VARIETY SOYBEAN (Glycine max (L.) Merr.)

| NAME OF APPLICANT(S) | Monsanto Technology | LLC | | FOR OFFICIAL USE ONLY |
|----------------------------------|--|----------------------------------|---|--|
| ADDRESS (Street and No. or R.F. | D. No., City, State, and ZIP Code) | | A SECTION AND A | 200300124 |
| | 634 E. Lincoln Way Ames, IA 50010 | | | VARIETY NAME 0040887 TEMPORARY OR EXPERIMENTAL DESIGNATION |
| | | | | DFN3002C0R |
| PLEASE READ ALL INSTR | UCTIONS CAREFULLY: Place the ap | propriate number that descr | ibes the varietal character of th | nis variety in the boxes below. |
| Place a zero in the first box (e | g. 099 or 09) when num | iber is either 99 or less or 9 (| r less respectively. Data for qu | uantitative |
| plant characters should be ba | sed on a minimum of 100 plants. Comp | arative data should be deter | mined from varieties entered in | the same trial. Royal |
| Horticultural Society or any r | ecognized color standard may be used to | o determine plant colors; des | gnate system used: | |
| Please answer all questions fo | your variety; lack of response may del | ay progress of your applicati | on. | |
| . MORPHOLOGY | | | | |
| eed Shape: | | | | |
| 3 = Elon | Γ , and Γ /W ratios < 1.2) | (L/W) ratio $4 = Elong$ | ical-Flattened > > 1.2; L/T ratio < ate-Flattened > 1.2;T/W ratio > | |
| eed Coat Color: | | | | , |
| 1 1 = Yello | w 2 = Green | 3 = Brown | 4 = Black | 5 = Other (Please Specify) |
| eed Coat Luster: | | | | |
| 1 1 = Dull | 2 = Shiny | | | |
| eed Size: | | | | |
| | rams/100 seeds | .03 (4) (6) | | |
| ilum Color: | | | • | |
| 5 1 = Buff 6 = Black | 2 = Yellow 7 = Other (<i>Plea</i> | 3 = Brown se Specify) | 4 = Gray | 5 = Imperfect Black |
| otyledon Color: | | | | |
| 1 1 = Yello | w 2 = Green | | | |

A. MORPHOLOGY (Continued)

Seed Protein Peroxidase Activity:

$$1 = Low$$

$$2 = High$$

Hypocotyl Color:

Leaf Shape:

$$2 = Oval$$

$$3 = Ovate$$

Flower Color:

Pod Color:

$$3 = Black$$

Pubescence Color:

$$\begin{vmatrix} 1 & 1 \\ 1 & 1 = Gray \end{vmatrix}$$

Plant Habit:

$$3 = Indeterminate$$

Maturity Group:

$$\begin{array}{c} 1 = 000 \\ 6 = III \end{array}$$

$$2 = 00$$
$$7 = IV$$

$$3 = 0$$
$$8 = V$$

$$4 = I$$
$$9 = VI$$

$$5 = II$$
$$10 = VII$$

$$12 = IX$$

$$13 = X$$

$$14 = XI$$

$$15 = XII$$

Maturity Subgroup:

Please enter a value from 0 - 9

B. DISEASE REACTIONS

$$0 = Not Tested$$

$$2 = Resistant$$

$$3 = Tolerant$$

Bacterial

- Bacterial Pustule (Xanthomonas campestris pv. glycines (Nakano) Dye)
- Bacterial Blight (Pseudomonas syringae pv. glycinea (Coerper) Young, Dye, & Wilkie)
- Wildfire Blight (Pseudomonas syringae pv. tabaci (Wolf & Foster) Young, Dye, & Wilkie)

Fungal

0

Brown Spot (Septoria glycines Hemmi)

| _ | ъ. | | WIONIG (C) | | A N. 4 III4. | | G | egele A Design | | VV I |
|---------|-----|--------------------|--------------------------|-------------|-----------------|---------------|----------|-------------------|-----------|------------------|
| в. | וע | | TIONS (Continu | , | 0 = Not Teste | ea 1 = | Suscept | | stant 3 = | Tolerant |
| , | | Frogeye Leaf ¬¬ | f Spot (<i>Cercospo</i> | ra sojina | Hara) | | | | | ** -, |
| | 0 | race 1 | | 0 | race 2 | | 0 | race 3 | 0 | race 4 |
| L | 0 | race 5 | · | 0 | race 6 | | | Other (Please Spe | cify) | |
| | 0 | Target Spot (| (Corynespora ca | ssiicola (I | Berk. & Curt. |) Wei) | | | | |
| | 0 | Downey Mild | lew (Peronospor | a trifolio | rum var. man | churica (Na | aum.) Sy | yd. ex Gäum) | | |
| | 0 | Powdery Mile | dew (<i>Microspha</i> | era diffu: | sa Cke. & Pk. |) | | | | |
| | 0 | Brown Stem | Rot (<i>Phialophor</i> | a gregata | (Allington & | Chamberla | ain) W. | Gams.) | | |
| | 0 | Stem Canker | (Diaporthe pha | seolorum | (Cke. & Ell.) | Sacc. var. | caulivor | a Athow & Caldw | rell) | |
| | 0 | Pod and Stem | ı Blight (<i>Diapor</i> | the phase | colorum (Cke. | & Ell.) Sac | ec. var. | sojae (Lehman) W | ehm.) | |
| | 0 | Purple Seed S | Stain (<i>Cercospor</i> | a kikuch | ii (T. Matsu. 8 | & Tomoyas | u) Gard | ener) | | |
| | 0 | Rhizoctonia R | Root Rot (Rhizo | ctonia sol | ani Kühn) | | | | | |
| Phy | top | hthora Root Ro | ot (<i>Phytophthore</i> | a megasp | erma Drechs. | f. sp. glycin | ıea (Ku | an & Erwin)) | | |
| | 2 | race 1 | 2 race 8 | | 2 race 15 | 1_1 | race 22 | | | |
| <u></u> | 2 | race 2 | 2 race 9 | | race 16 | 2 | race 23 | | | |
| | 2 | race 3 | 2 race 10 | | race 17 | 2 | race 24 | | | |
| | 1 | race 4 | 2 race 11 | | race 18 | 1 1 | race 25 | | | |
| | 1 | race 5 | 1 race 12 | | race 19 | 2 | race 26 | | | |
| | 2 | race 6 | 2 race 13 | | race 20 | 2 | Other (1 | Please Specify): | | |
| | 2 | race 7 | 1 race 14 | | 2 race 21 | - | Races | 28, 29, 30, 32 | | |
| | 0 | Bud Blight (To | obacco Ringspo | t Virus) | | | | · | | |
| | 0 | Yellow Mosaid | c (Bean Yellow | Mosaic V | 'irus) | | | | | |
| | 0 | Cowpea Mosa | ic (Cowpea Chl | orotic Vi | rus) | | | | | |

Pod Mottle (Bean Pod Mottle Virus)

| e ni | SEASE REACTIONS (Continued) | 0 = Not Tes | ted 1 = 9 | Susceptible | 2 = Resistant | 03 3 - 0 010221 | 24 |
|--------|-------------------------------------|------------------|----------------|-------------|---------------|-------------------------------|----|
| 0 | Seed Mottle (Soybean Mosaic Virus | | , | мьсерими | | , | |
| Nemate | Ť | ., | | | | مهاطبين | |
| | n Cyst Nematode (Heterodera glycine | es Ichinohe) | | | | | |
| 0 | race 1 0 race 4 | 0 | race 9 | | | | |
| 0 | race 2 0 race 5 | 1 | race 14 (form | er r. 4) | | | |
| 1 | race 3 0 race 6 | | Other (Please | Specify) | | | |
| 0 | Lance Nematode (Hoplolaimus colu | mbus Sher) | | ,e | | | |
| 0 | Southern Root Knot Nematode (Me | eloidogyne incoį | gnita (Kofoid | & White) Ch | uitwood) | | |
| 0 | Northern Root Knot Nematode (Me | eloidogyne hapl | a Chitwood) | | | | |
| 0 | Peanut Root Knot Nematode (Melon | idogyne arenari | ia (Neal) Chit | wood) | | | |
| 0 | Reniform Nematode (Rotylenchus re | eniformus Linw | vood & Oliver | a) | · | | |
| 0 | Javanese Nematode (Meloidogyne ja | avanica (Treub) |) Chitwood) | | | | |
| | Other Nematode (Please Specify) | | | | | · | |
| C. PH | YSIOLOGICAL RESPONSES | 0 = Not Test | ted $1 = S$ | usceptible | 2 = Resistant | 3 = Tolerant | |
| 0 | Iron Chlorosis on Calcareous Soil | | | | | | |
| 0 | Phosphorus | | | | | | |
| | | | | - | | | • |
| 0 | Boron | | | | | ÷ | |
| 0 | Aluminum | | | | | | |
| 0 | Salt | | · *\ | | | | |
| 0 | Drought | AREA | | | | | |
| | Other (Please Specify) | - | | | | | |

| | | | 200300 | 124 |
|---|--|----------------------|--|--|
| D. INSECT REACTIONS | 0 = Not Tested | 1 = Susceptible | | l'olerant |
| 0 Mexican Bean Beetle (Epilachn | a varivestis Mulsant) | | Entrition of the State of the S | The state of the s |
| 0 Potato Leaf Hopper (Empoasca | a fabae (Harris)) | | | |
| Other (Please Specify) | | | | <i>}</i> |
| E. HERBICIDE REACTIONS | 0 = Not Tested | 1 = Susceptible | 2 = Resistant | |
| 2 Metribuzin | | • | | |
| 0 Bentazone | | | | |
| 1 Sulfonylurea | | | | |
| 2 Glyphosate | | | | |
| 1 Glufosinate | | | w. | |
| 0 Pendimethalin | | | | |
| Other (Please Specify) | | | | |
| F. TRANSGENIC COMPOSITION | | | | |
| Has the development of the Subject Var If yes, please complete the following info 1. Please state the vector's name: 2. Please state the vector components: 3. Please describe the genetic material 4. Please describe the insertion protoco | ormation requests*. Use successfully transferred | additional pages if | necessary. | NO |
| * A literature citation(s) explaining the "Transgenic Composition" portion | | ests above may be ar | acceptable alternative to | o completion of |
| • | wê. | | | |
| U.S. Patent No. 5,776,760. Issue Date | :: July 7, 1998. Invento | r: Barry, Gerard, ai | nd Kishore, Ganesh. As | signee: |

Monsanto Company. Patent Application No. 484,274.

ABSTRACT: Genes encoding a glyphosate oxidoreductase enzyme are disclosed. The genes are useful in producing transformed bacteria and plants which degrade glyphosate herbicide as well as crop plants which are tolerant to glyphosate herbicide.

G. BIOCHEMICAL MARKERS

Please describe any biochemical information here which you believe will be helpful in further describing the Subject Variety (e.g. Simple Sequence Repeats, Restriction Fragment Length Polymorphisms, Isozymic Characterization). Use additional pages if necessary.

H. COMMENTS

MONSANTO TECHNOLGY LLC PVP APPLICATION - 0040887

EXHIBIT D

ADDITIONAL DESCRIPTION OF INVENTION

0040887 is an early maturity group III variety with resistance to Roundup tm herbicide. It has very high yield potential. It has superior yields to lines of similar maturity and has excellent agronomic characteristics, including lodging resistance. In tests, it has beaten Pioneer 93B26 by 114 % overall, winning at 19 of 31 locations. It is adapted to the early maturity group III growing areas of Iowa, Indiana, Ohio, Nebraska, Kansas, Illinois, Missouri, and Pennsylvania. It has only slightly above average appearance.

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| U.S. DEPARTMENT OF AGRICULTURE | | |
| AGRICULTURAL MARKETING SERVICE | Application is required in order to del certificate is to be issued (7 U.S.C. 2 | 421). The information is held |
| EXHIBIT E | confidential until the certificate is issu | ued (7 U.S.C. 2426). |
| STATEMENT OF THE BASIS OF OWNERSHIP | | |
| 1. NAME OF APPLICANT(S) | 2. TEMPORARY DESIGNATION OR EXPERIMENTAL NUMBER | 3. VARIETY NAME |
| Monsanto Technology LLC | DFN3002C0R | 0040887 |
| 4. ADDRESS (Street and No., or R.F.D. No., City, State, and ZIP, and Country) | 5. TELEPHONE (Include area code) | 6. FAX (Include area code) |
| 634 E. Lincoln Way | (515) 232-7170 | (515) 232-6905 |
| Ames, IA 50010 | | |
| | 7. PVPO NUMBER | |
| | 2003 | 00124 |
| 8. Does the applicant own all rights to the variety? Mark an "X" in t | | |
| • | | X |
| 9 Is the configurat (individual or company) a U.S. National as a U.S. | | • |
| 9. Is the applicant (individual or company) a U.S. National or a U.S. | . pased company? It no, give name of | country. X YES NO |
| 10. Is the applicant the original owner? | NO If no, please answer one o | f the following: |
| a lifetha asiminal simble to reside come and the light of the life has | | |
| a. If the original rights to variety were owned by individual(s), is YES YES | (are) the original owner(s) a U.S. Nation NO If no, give name of countr | |
| | is no, give name or counti | , |
| h Milha adalah dahir da a | | |
| b. If the original rights to variety were owned by a company(ies |), is (are) the original owner(s) a U.S. ba NO | |
| 120 | no, give name of count | y |
| | | |
| 11. Additional explanation on ownership (If needed, use the reverse | for extra space): | |
| | | |
| | | |
| | | |
| | • | |
| | | |
| PLEASE NOTE: | ************************************** | |
| Plant variety protection can only be afforded to the owners (not licen- | sees) who meet the following criteria: | |
| 4. If the rights to the variable are surred by the sales of the sales | | |
| If the rights to the variety are owned by the original breeder, that p national of a country which affords similar protection to nationals of | erson must be a U.S. national, national of the U.S. for the same genus and spec | of a UPOV member country, or ies. |
| If the rights to the variety are owned by the company which emplo nationals of a UPOV member country, or owned by nationals of a genus and species. | yed the original breeder(s), the company country which affords similar protection | y must be U.S. based, owned by to nationals of the U.S. for the same |
| 3. If the applicant is an owner who is not the original owner, both the | original owner and the applicant must n | neet one of the above criteria. |
| The original breeder/owner may be the individual or company who di Act for definitions. | | |
| According to the Peneguard Podyletics Add of 1905 as a second | | |
| According to the Paperwork Reduction Act of 1995, an agency may no conduct or sponsor, control number. The valid OMB control number for this information collection is 0581-0055, response, including the time for reviewing the instructions, searching existing data sources, | The time required to complete this information colle gathering and maintaining the data needed, and con | ction is estimated to average 6 minutes per apleting and reviewing the collection of information. |
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